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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/640,466	08/16/2000	Ilan Frenkel	50325-0104	4567

7590 07/06/2004

Hickman Palermo Truong & Becker LLP  
1600 Willow Street  
San Jose, CA 95125-5106

EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/640,466

Applicant(s)

FRENKEL ET AL.



Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-24 and 26-31 is/are rejected.
- 7) ☒ Claim(s) 8 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/2/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-32 are presented for examination.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-24 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al.(hereafter "Stevens")[U.S. Pat. No. 6539425] in view of Chu et al.(hereafter "Chu")[U.S. Pat. No. 6263367].

4. Chu was cited in the previous office action.

5. As to claim 1, Stevens teaches the invention substantially as claimed including:  
a method of retrieving and storing quality of service policy management  
information using a directory service [col.13, lines 14-43]consisting of a plurality of  
directory information trees [e.g. 735, 736 of Fig. 7 in each replicated directory], each

replicated directory that are created and stored in the directory service in association with a directory information tree manager [600, Fig.6 or DACM, Fig.3], wherein when quality of service policy management information is needed, the tree manager determines which one of the directory information trees is a currently active directory information tree [col.4, lines 41-54; col.12, lines 23- 63; i.e., by default, when the DACM establishes a data path between a network device and data stores (i.e., storing the QoS information), it should avoid accessing a currently active directory information tree at the same time].

Stevens does not specifically teach retrieving the quality of service policy management information from the currently active directory information tree only during a time period within the validity period value thereof and receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager.

However, Chu teaches a dynamic directory service management technique wherein each relevant information is marked with a time-to-live value for marking a validity period since the information is initially stored [Chu: col.2, lines 15-25].

It would have been obvious to one of ordinary skill in the art at the time the invention was made that it is advantageous to apply Chu's dynamic directory service management technique in all the Stevens's replicated directories because it would further facilitates periodical garbage collection, thereby accurately removing out-of-date information in an efficient manner [Chu: col.2, lines 29-44].

6. As to claim 2, Stevens in view of Chu further teaches that a directory information tree becomes available for access only when all read operations and write operations are complete with respect to that directory information tree [Note that this is true to a directory tree stored in a memory media that can only be singly accessed by a process at one time].

7. As to claim 3, Chu further teaches means for providing, in the directory information tree manager, a reference to one or more old directory information trees for use by a reading process that specifically requests retrieval of obsolete quality of service policy information that is associated with the one or more old directory trees [col.14, lines 12-18].

8. As to claim 4, Stevens in view of Chu teaches that the method further comprising:

creating and storing a validity designation value in association with each directory information tree, in which the validity designation value indicates whether the directory information tree is active, old, or to be erased;

retrieving the quality of service policy management information from one directory information tree that has a validity designation value of "active," and only during a time period within the validity period value thereof.

[Chu: Figs.3-4; i.e., the time-to-live period becomes expired if it has not been refreshed, and the associated items in the directory is subject to be deleted]

9. As to claim 5, Chu further teaches that deleting an obsolete directory information tree only after its validity period has expired [Chu: col.2, lines 34-35].

10. As to claim 6, Chu further teaches that the steps of testing the validity designation value after carrying out a read operation, and verifying validity of information that has been read by determining whether the validity designation value is currently null [note that this is inherent to Chu's dynamic directory because "null" is a possible status associated with an entry of the directory (e.g., when the time-to-live period has become zero)].

11. As to claim 7, Chu teaches that the method further comprising the steps of determining that one or more objects in a directory information tree has been modified by a process and rewriting to the directory service only selected units of the directory information tree [i.e., it is obvious that Chu in view of Stevens's directory service would include object modification process so as to keep the directory information up-to-date].

12. As to claims 9-11, since the features of these claims can also be found in claims 1-7, they are rejected for the same reasons set forth in the rejection of claims 1-7 above.

13. As to claim 12, Chu further teaches that the quality of service policy information associated with each of the directory information trees comprises a sub-tree of one or more quality of service policies [col.14, lines 48-59].

14. As to claim 28, Stevens further teaches that the Directory Information Trees and the Directory Information Tree Manager provide consistency control over policy sub-trees that store quality of service policy information [note that consistency must have been maintained in Stevens in view of Chu's system, especially among the replicated directories, otherwise the information stored therein would render erroneous].

15. As to claims 13-24, 26-27 and 29-31, since the features of these claims can also be found in claims 1-7, 9, 11 and 18, they are rejected for the same reasons set forth in the rejection of claims 1-7, 9, 11 and 18 above.

16. Claims 8 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Claim 32 is allowable because the prior art of record individually or in combination does not teach a machine readable medium with sequences of stored instructions accessible to the processor and which, when executed by a processor,



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cause the processor to carry out the steps of: determining that one or more objects in one of the directory information trees has been modified by a process and rewriting to the directory service only such objects, service template objects, and policy decision point objects as have been modified by the process, wherein the medium carries at least a plurality of directory information trees containing quality of service policy information, each directory information tree includes at least a policy sub-tree that has at least one or more role objects, one or more service template objects, and one or more policy decision point objects, wherein the objects, service template objects, and policy decision point objects are related to the quality of service information; one or more

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Vaid et al. [U.S. Pat. No. 6047322]; and

Martin [U.S. Pat. No. 6154776].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone

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numbers for the organization where this application or proceeding is assigned are as follows:

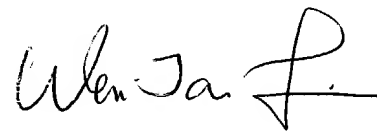
(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

June 29, 2004

  
6/29/04